BARCO PROJECTION SYSTEM

BARCO PRECA 1280 i

Quick Reference

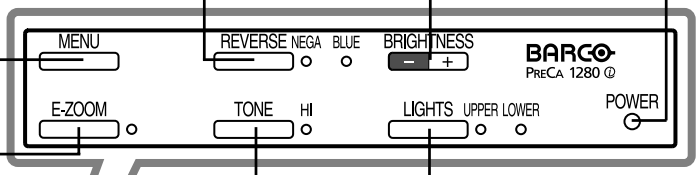
Button for Basic Operations

REVERSE button, NEGA and BLUE indicators
For a negative image, press the button.
Each time you press the button, the display changes in the sequence: Normal ⇨ Black & White Reversal (NEGA indicator lights) ⇨ Blue display (BLUE indicator lights) ⇨ Normal, and so on.

POWER indicator
It lights when the power is on.

BRIGHTNESS buttons
Press to adjust the brightness of the screen.

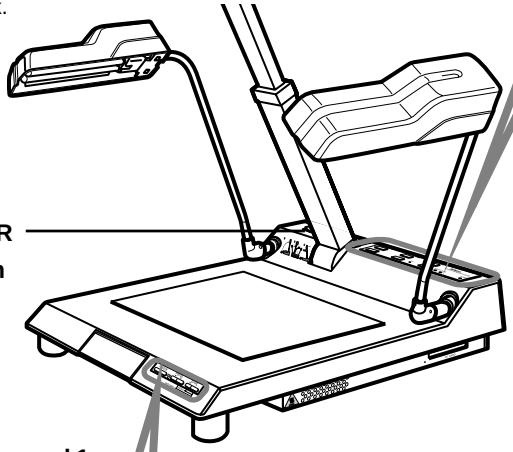
Operation panel 2



MENU button
Press to turn the menu display on/off.

E-ZOOM button/indicator
Press the button to activate the electronic zoom function. The indicator lights, and the image is enlarged 2 or 4 times. When you press the button again, the function is deactivated, and the indicator goes dark.

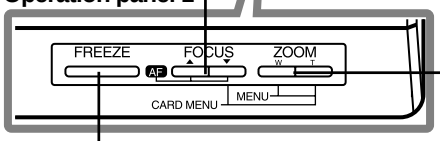
LIGHTS button/UPPER and LOWER indicators
Press the button to light the fluorescent lamps.
Each time you press the button, the illumination changes in the sequence: Upper lamps on (UPPER indicator lights) ⇨ Lower lamps on (LOWER indicator lights) ⇨ Both off, and so on.



POWER switch

TONE button/indicator
Press the button to sharpen the image. The indicator lights.
When you press the button again, the TONE function is deactivated and the indicator goes dark. Using the menu, fine adjustment in 5 steps can be made.

Operation panel 1



FOCUS ▲ / ▼ buttons
Press to focus on the document.
For automatic focusing, press both buttons simultaneously.
- These buttons are also used for menu operations from the operation panel.

ZOOM W/T buttons
To adjust the size of the image.
Press the ZOOM T button to enlarge the image.
Press the ZOOM W button to widen the area to be captured.
- These buttons are also used for menu operations from the operation panel.

FREEZE button
Press to freeze the image on the screen when changing the documents. When the Freeze function is active, the freeze mark ⏸ is displayed. Press again to release the Freeze function.
- The Freeze function is valid only for the monitor or projector screen connected to the RGB connector of this unit.
- This button is also used for menu operations from the operation panel.

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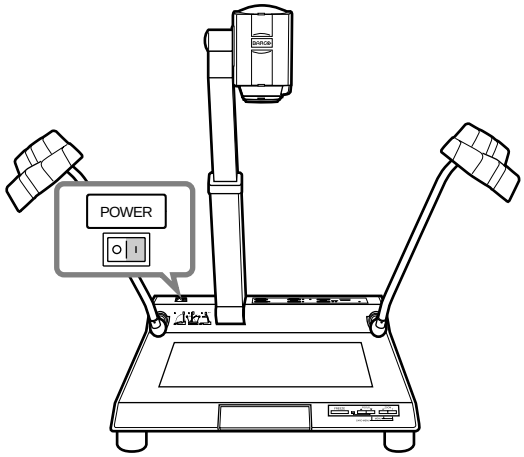
Shooting a Document

1 Perform connections.

Connect a monitor or projector to the RGB connector on the rear of this unit. For details, refer to page 13 of the User's Manual.

2 Turn on the unit.

Press the **POWER** switch down to the | side.



3 Turn on the monitor or projector.

For details, refer to the operation manual for the connected equipment.

4 Perform the input selection on the monitor or projector.

Set it so that the picture from this unit is displayed.

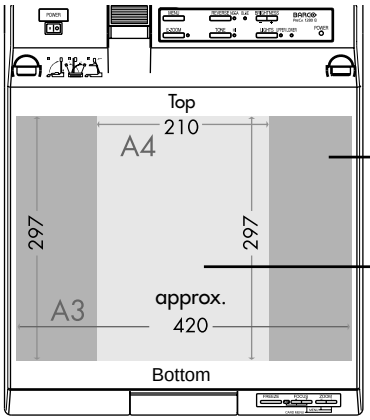
5 Turn on the lamps.

Press the **LIGHTS** button.

Pressing the button switches the overhead lighting to the lower built-in light.

- **For opaque material**
  Use the overhead lighting.
- **For transparent material**
  Use the built-in light under the document stage.

6 Place the material on the document stage.

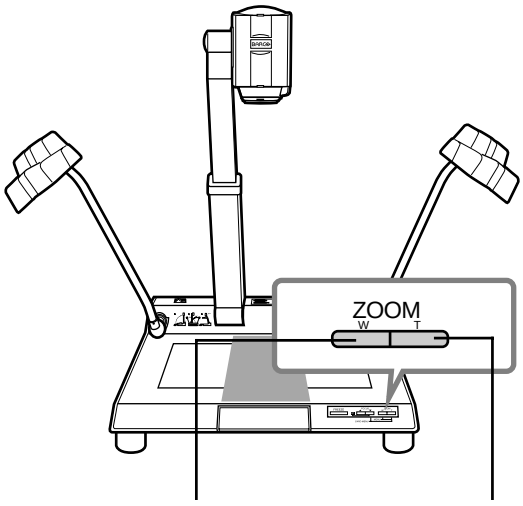


297 mm × 420 mm width wide

210 mm × 297 mm upright

7 Adjust the image size.

Press the **ZOOM W** or **T** button. When you hold the button pressed, the image size changes continuously.



ZOOM W button
Press to widen the area to be captured.

ZOOM T button
Press to enlarge the image (max. 6 times).

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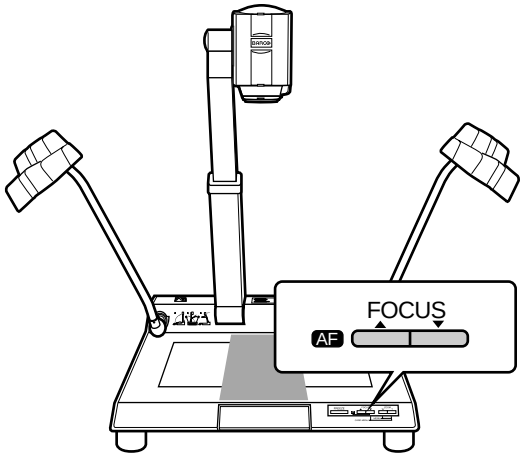
8 Adjust the focus.

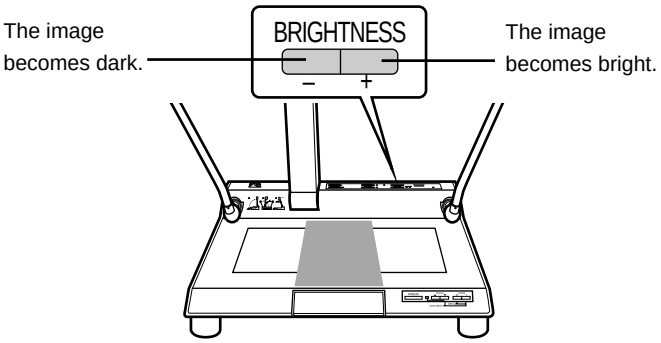
Press the **FOCUS** ▲ and ▼ buttons simultaneously. The focus is adjusted automatically.

For fine adjustment, lightly tap the **FOCUS** ▲ or ▼ button until correct focus is obtained.



9 Adjust the brightness.

Press the **BRIGHTNESS** + or – button.



■ Using the Freeze function

When changing the materials, you can eliminate operator's hands being seen on-screen.

1 Press the FREEZE button.
Press the button before removing the material. The image will be frozen on the screen.

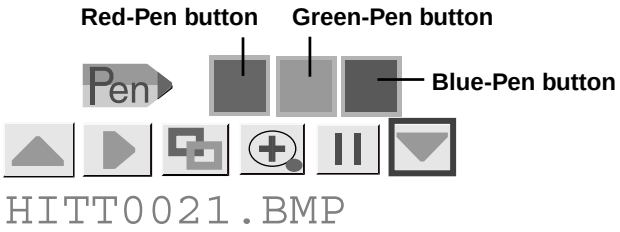
2 Change the material.
The original image stays on the screen.

3 Press the FREEZE button again.
The Freeze function is deactivated, and the image of the new material appears on the screen.

■ Using the Pen function

You can draw lines or circles using a mouse for smooth presentations.

1 Display the PC Card menu.
Right-click on the area in the lower four-fifths of the screen.



2 Select the pen colour.
Left-click on the Red-, Green-, or Blue-Pen button.
The pointer changes to a pen icon of the selected colour.

3 Draw a line using the pen icon.
Drag the pen icon (move it while holding the left mouse button pressed).

- The lines drawn with the Pen function will disappear when another image on the PC card is displayed.
- To deactivate the Pen function, click the right mouse button.
- For details on PC cards, refer to pages 33 to 37 of the User's Manual.

■ For a clear image

Press the **TONE** button.
The contrast of the image is emphasized, making the image clear.

■ Using the electronic zoom

Press the **E-ZOOM** button.
The electronic zoom function is activated, and the E-ZOOM indicator lights.
The image size becomes two or four times that adjusted with the ZOOM W/T buttons.

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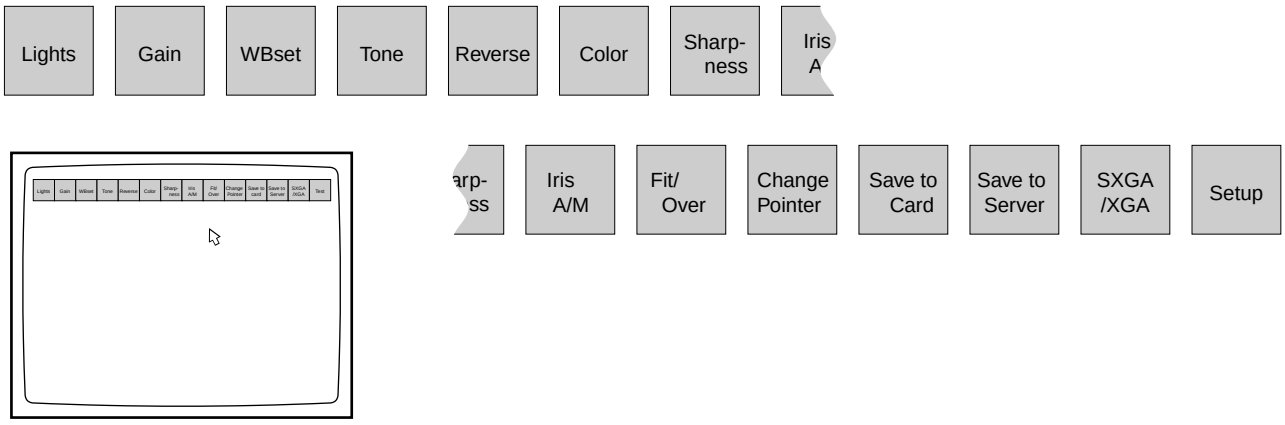
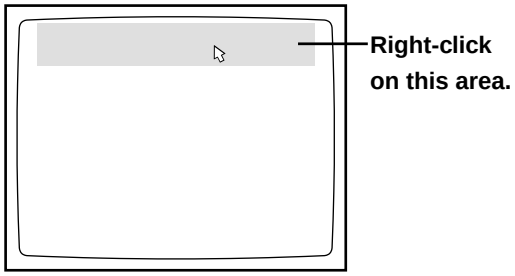
Using Menus

Further detailed adjustments and settings can be made using the menus.
There are two methods for menu operations; using the operation panel and using a mouse.
The method using a mouse is discussed here.



1 Display menus.

Right-click on the area in the upper one-fifth of the screen.



Screen of the connected monitor or projector

2 Select the menu icon.

Move the pointer onto the menu icon to be selected.
The status (settings of the menu items, etc.) of the menu is displayed beneath the icon.

3 Execute the selection.

Click the left mouse button.
You can now change setting values on the selected menu.

• For details on each menu setting, refer to pages 24 to 31 of the User's Manual.

Major menu icons

■ **Tone**
To adjust the picture tone.
- Natural: For ordinary documents
- Linear1: To output an image as-is without compensation
- Document: For documents with fine characters
- Linear2: For glossy documents (the brightness will be decreased.)
- Picture: For photos and colour printed matters

■ **Sharpness**
To adjust the image contours, which can be adjusted in 6 steps.

■ **Iris A/M**
To alternately select automatic and manual iris adjustments for the camera. Normally select Auto.
- Auto Exp. ON: To activate the Auto Iris function
- Auto Exp. OFF: To deactivate the Auto Iris function

Use the BRIGHTNESS +/- buttons on the operation panel 2 when adjusting the brightness.

■ **Save to Card**
To save image data on a PC card.
Set "File Type" of "Timer ... Setting" of the Setup menu in advance.

■ **SXGA/XGA**
To switch the output mode.

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BARCO PRECA 1280 i -R9840700

User's Manual

BARCO

BARCO PROJECTION SYSTEMS

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Federal Communications Commission (FCC) Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Barco Projection Systems may void the user's authority to operate the equipment.

Notice for customers in Canada

CAUTION

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

ATTENTION

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matérial brouilleur du Canada.

Notice for customers in European countries

ACHTUNG

Dieses Gerät entspricht den Bestimmungen der EG-Direktive 87/308/EEC zur Störungsunterdrückung.
Lärmemission kleiner 70 dBA.

Safety Precautions

To ensure safe and correct usage, observe the following precautions:

- **Before operating the BARCO PRECA 1280 i, read these Safety Precautions thoroughly to ensure safe and proper operation of the unit.**
- **The precautions given here contain important instructions to ensure safe usage of the product. Be sure to observe these precautions.**
- **KEEP THIS MANUAL HANDY FOR ANYONE WHO USES THE UNIT.**

The symbols used in this manual have the meanings described below.

⚠ CAUTION — **Failure to observe this instruction could lead to personal injury and/or property damage.**

Examples of picture symbols

Do NOT make repairs yourself

NEVER do it (symbol for prohibited action).

Unplug power plug from receptacle

ALWAYS follow the instruction (symbol for required action).

⚠ CAUTION

Contact us immediately

Connect ground

Do NOT make repairs yourself

Ask for repairs immediately

Operate with care

Do NOT block the ventilation holes

Operate with care

Set the POWER switch to OFF

Do NOT make repairs yourself

Operate only in a proper environment

Install only in a proper environment

Power supply

- This unit operates on 100 V to 240 V AC. Use only the power cable shipped with the unit. Do NOT use another cable. Doing so may lead to fire or electric shock. If the power cable is damaged or lost, ask your dealer for replacement.
- Ground must be connected at the AC outlet. A leak can cause an electric shock. (☞ p.17)

Handling the unit

- Some parts inside the unit carry high voltage. Internal repairs must not be attempted by the user.
- Should any object or liquid enter the unit, immediately turn off the power and consult your dealer.
- When transporting the unit or when folding the camera head and light blocks, be careful not to get your fingers or clothing caught between the camera head arm and document stage. When extending or folding the arm, do not let go until it locks in place. Otherwise, the arm may fall, pinching your hand or causing damage to the camera block.
- Do NOT block the ventilation holes of the unit. If they are blocked, heat will build up and may cause fire.
- The fluorescent lamps are hot while lit and soon after being turned off. NEVER touch the lamps when hot. To replace or clean the lamps, wait at least 15 minutes for them to sufficiently cool down. (☞ p.38)
- Before replacing the fluorescent lamps, turn off the power to avoid electric shock. (☞ p.38)
- The unit has built-in fluorescent lamps in the base for transparent material. Do NOT apply excessive force or shock. If the built-in fluorescent lamps are damaged, consult your dealer. For repair, special devices are required. NEVER attempt repair by yourself.
- Do NOT use the unit in a humid or dusty area. Such conditions may lead to fire or malfunction.
- When this unit is used for a long time, the bottom of the unit becomes hot. Do NOT leave the unit on a heat-sensitive surface, such as a plastic sheet.

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⚠ CAUTION

Unplug power plug from receptacle

Storage

- If the unit will go unused for a prolonged period, ensure safety by disconnecting the power plug.

Store only in a proper environment

- Store the unit in a place not subject to excessive humidity or dust.

Do NOT place anything on top

- For storage, place the unit horizontally and do NOT place anything on top of it.

Use an appropriate power supply

- Use an AC power supply of 50/60 Hz and a voltage of from 100 V-240 V. The appropriate power cable depends on the voltage in the area of use. Using the presentation camera with the wrong cable could result in fire, or electric shock.

  When using voltage in excess of AC 125 V:

  Use a power cable in accordance with all safety standards of the country in which it is used, and an AC 250 V plug with a 15 A rating (NEMA 6P-15), and insulation of at least SVT type and more than AWG 18-inch thickness.

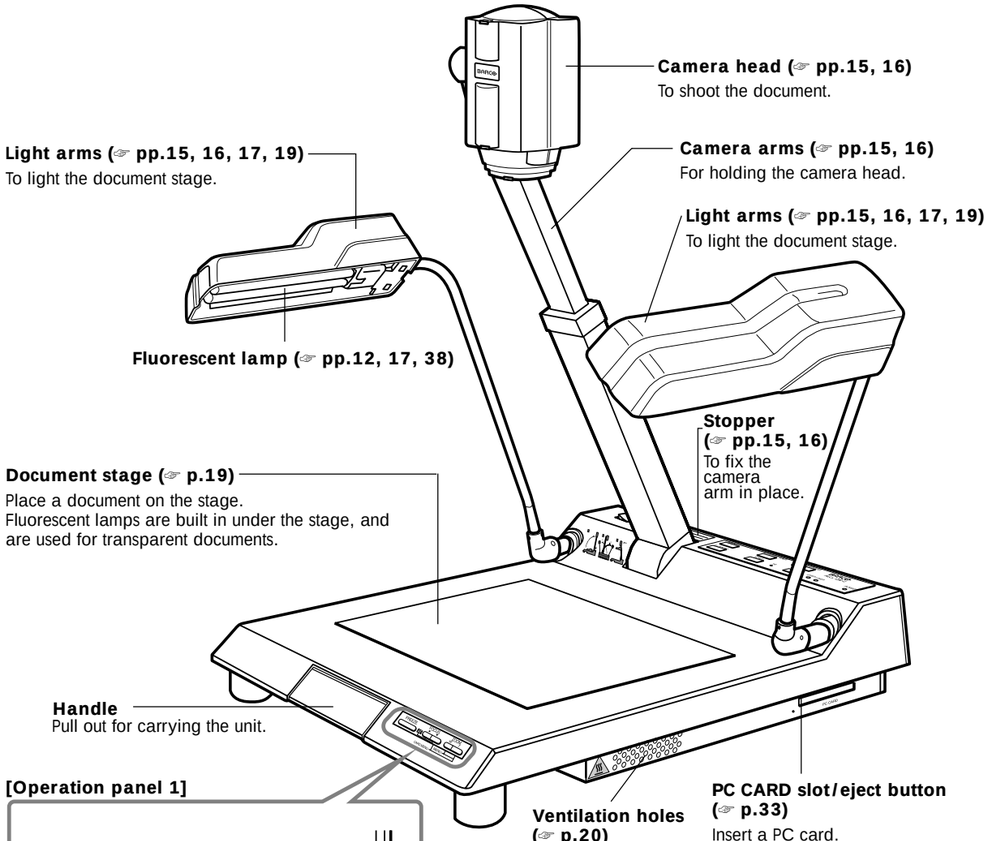
  When using voltage of AC 125 or less:

  Use a power cable in accordance with all safety standards of the country in which it is used, an AC 125 V plug with a 10 A rating, and insulation of at least SVT type and more than AWG 18-inch thickness.

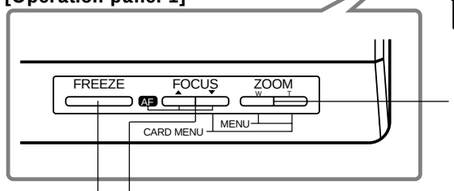
PARTS IDENTIFICATION

For detailed information, see the pages shown in parentheses.

Main Unit


Camera head (☞ pp.15, 16)
To shoot the document.
Camera arms (☞ pp.15, 16)
For holding the camera head.
Light arms (☞ pp.15, 16, 17, 19)
To light the document stage.
Light arms (☞ pp.15, 16, 17, 19)
To light the document stage.
Fluorescent lamp (☞ pp.12, 17, 38)
Stopper (☞ pp.15, 16)
To fix the camera arm in place.
Document stage (☞ p.19)
Place a document on the stage.
Fluorescent lamps are built in under the stage, and are used for transparent documents.
Handle
Pull out for carrying the unit.
Ventilation holes (☞ p.20)
PC CARD slot/eject button (☞ p.33)
Insert a PC card.
To eject the PC card, press the button.

[Operation panel 1]



ZOOM W/T buttons

To adjust the size of the image. (☞ p.19)
Press the ZOOM T button to enlarge the image.
When you press the ZOOM W button, the area to be captured is widened.
Also used for menu operations from the operation panel.
(☞ pp.22, 34)

FOCUS ▲/▼ buttons

Press to focus on the document. (☞ p.20)
For automatic focusing, press both FOCUS buttons simultaneously.
Also used for menu operations from the operation panel.
(☞ pp.22, 34)

FREEZE button

Press to freeze the image on the screen when changing the documents. (☞ p.20)
Press again to release the freeze function.
Also used for menu operations from the operation panel.
(☞ pp.22, 34)

Continue ▶▶▶▶▶

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Main Unit

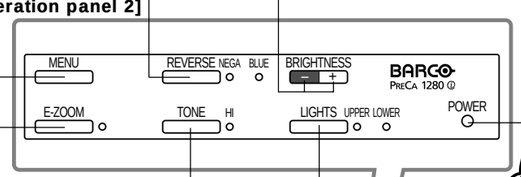
REVERSE button / NEGA and BLUE indicators
For a negative image or display in blue, press the button.
Each time you press the button, the display changes in the sequence Normal → Black & White Reversal (NEGA indicator lights) → Blue display (BLUE indicator lights) → Normal, and so on.

BRIGHTNESS button
Press to adjust the brightness of the screen. (☞ pp.20, 27)

MENU button (☞ p.22)
Press to turn the menu display on / off.

POWER indicator (☞ p.18)
It lights when the power is on.

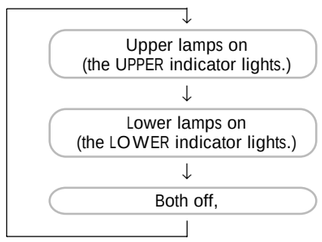
[Operation panel 2]



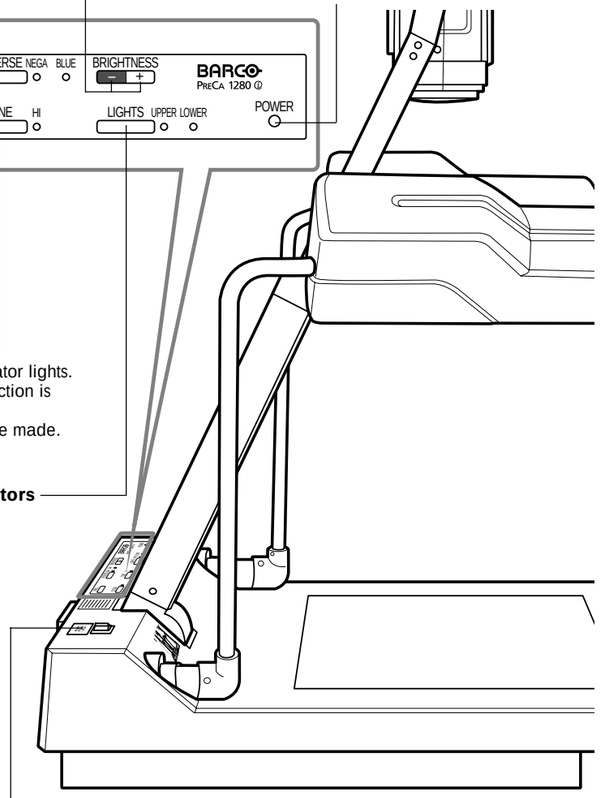
E-ZOOM button / indicator (☞ p.19)
Press the button to activate the electronic zoom function. The indicator lights, and the image is enlarged 2 or 4 times.
When you press the button again, the function is deactivated, and the indicator goes dark.

TONE button / indicator (☞ p.20)
Press the button to sharpen the image. The indicator lights.
When you press the button again, the TONE function is deactivated and the indicator goes dark.
Using the menu, fine adjustment in 5 steps can be made. (☞ p.25)

LIGHTS button / UPPER and LOWER indicators (☞ p.18)
Press the button to light the fluorescent lamps.
Each time you press the button, the illumination changes in the sequence:

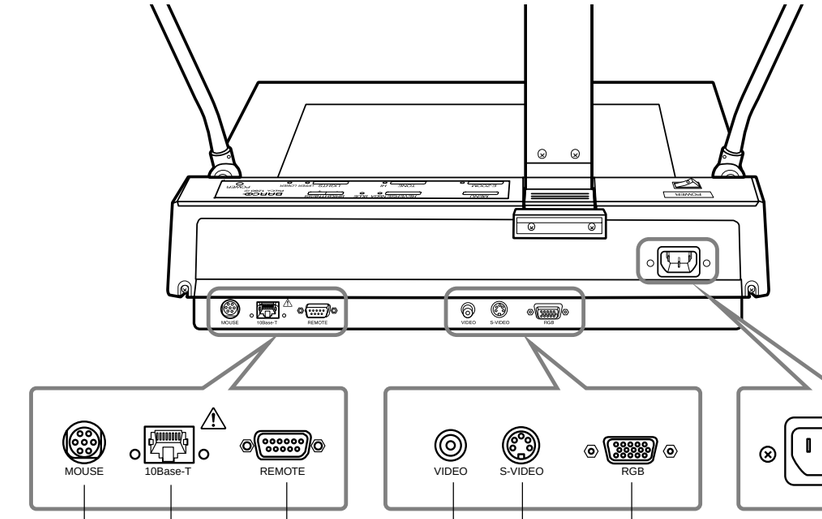


and so on.



POWER switch (☞ pp.13, 14, 18)
Used to turn the power on / off.

Connectors



REMOTE connector (RS-232C) (☞ p.14)
Connect to the RS-232C connector of a PC, etc.

AC power input connector (☞ p.17)
Connect to an AC outlet using the supplied power cable.

10Base-T connector (Ethernet) (☞ p.14)
For Ethernet connection with a PC, etc.

RGB connector (D-sub 15-pin) (☞ p.13)
Connect to the D-sub 15-pin connector of a video monitor, etc. using the supplied D-sub 15-pin cable.

S-video output connector (☞ p.13)
Connect to the S-video input of a projector, etc. using the supplied S-video cable.

MOUSE connector (☞ p.14)
Connect the supplied mouse.

Video output connector (☞ p.13)
Connect to the video input of a TV receiver, etc. using the supplied video cable.

⚠ Caution

Operate with care

● **Do NOT connect the public telephone line to the 10 Base-T connector.**

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PRECA 1280 i

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INTRODUCTION

Welcome to the world of BARCO PRECA 1280 i.

- After reading this manual, keep it handy for anyone who uses the unit.
- Upon purchase, be sure to check the descriptions on the warranty card and keep it for future reference.
  The product number is important for safety assurance. Check the number on the unit itself and on the warranty card.
- The contents of this manual are subject to change without notice.

Symbols used in this manual

Note

[Note] : Indicates an item to be noticed and checked.

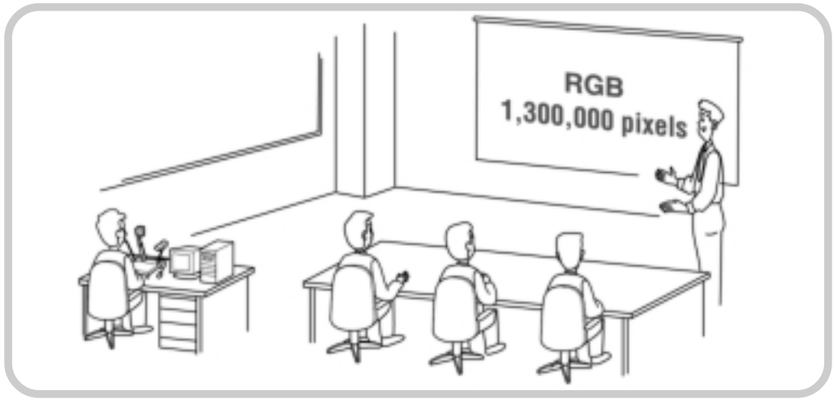
1 Point

[One point] : Indicates a helpful hint.

Features

High picture quality (SXGA and XGA outputs) by RGB outputs

Signals captured by the 1,300,000-pixel CCD camera are separated into R, G, and B signals for output, thus offering detailed and colorful images that make finer characters more legible than with conventional cameras.



Easy connection to a network (☞ pp.14, 32)

An Ethernet interface (10Base-T) is employed. This permits the Imager to be connected to an internet line as well as LAN in a company.

Full-sized input of U.S. letter-sized widthwise or upright sheets (☞ p.19)

When using a popular U.S. letter-sized sheet in the tall direction, you can capture a full-sized image. When placing a sheet widthwise, the image can be captured up to double the width of U.S. letter size.

Writing/reading images to/from a PC card (☞ pp.28, 33-35)

Image data can be stored on PC cards and loaded at any time for smooth presentation.

Smooth capturing of moving objects

By capturing 15 frames per second, smooth images can be obtained even when shooting moving objects.

Variety of functions, including freeze and electronic zoom (☞ pp.19, 20, 21-31, 36)

In addition to the freeze, white balance, auto focus, color compensation, gamma compensation, and image inversion functions, the electronic zoom function up to 4x is provided. In combination with the optical 6x zoom, 24x zoom at maximum can be obtained.

Input of transparent materials (☞ p.18)

The unit is equipped with a special lighting device that enables easy capturing of transparent sheets.

Easy operation using a mouse (☞ pp.23, 34)

Operations can be executed by making selections from menus using a mouse.

Simultaneous use of NTSC and PAL on the submonitor and operations from the submonitor (☞ p.21)

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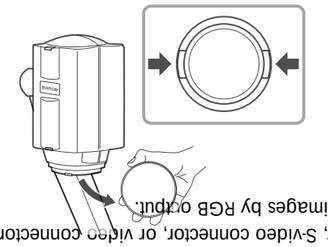
Raising the Camera Head and Light Arms

Continued

4 Remove the cap from the camera.



To Fold the Camera Arm and Light Stands

Reverse the procedure of "Raising the camera arm and light stands". (p.15)

1 Align the camera head with the camera arm.

2 Draw in the camera arm.

3 While holding the stopper pressed, raise the camera arm until it stands vertically.

Grip the camera arm when raising the camera head.

4 Fold the light stands.

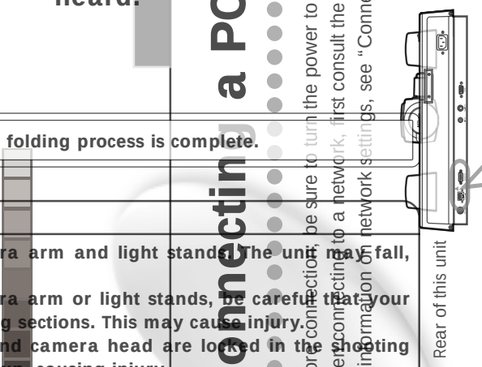
Fold the light stands with the fluorescent lamps facing the document stage.
Fold the right stand first.
Then, fold the left stand.

5 While holding the stopper pressed, fold the camera arm until a clicking sound is heard.

CONNECTIONS

Connecting a PC/Ethernet

Before connecting to a network, first consult the administrator of the network.
When connecting to a network, be sure to turn the power to this unit and the device to be connected off before connection.
Depending on the device to be connected, use the RGB connector, S-video connector, or video connector.
Connection via the RGB connector provides detailed and colorful images by RGB output.



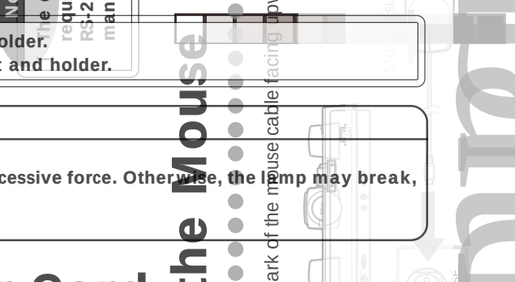
The shape of the cable may vary depending on the country of sale.

Connecting the Power Cord

Connect the power cable after all other connections are completed.
First connect the cable to the AC input connector of this unit, next connect the ground wire, then connect it to an AC outlet.

Connecting the Mouse

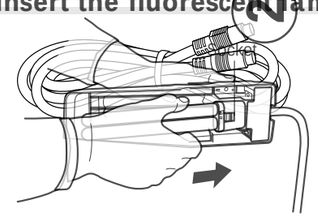
Connect the mouse with the arrow mark of the mouse cable facing upward.



Attaching the Fluorescent Lamps

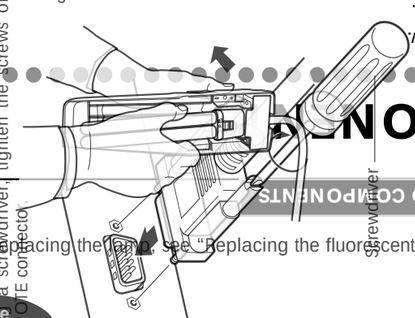
Attach the supplied fluorescent lamps to the lamp holders on the light arms.
Check that the POWER switch is in the OFF position, and the power plug is disconnected from the AC outlet.

1 Insert the fluorescent lamp into the socket of the light stand.



2 While pressing the lamp towards the socket, fit it in the holder.

A clicking sound is heard.



When replacing the lamp, see "Replacing the fluorescent lamps". (p.32)

Note

- Be careful that the lamp will not be damaged by the holder.
- Make sure that the lamp is firmly secured in the socket and holder.

Caution

Do NOT force

- When handling a fluorescent lamp, avoid excessive force. Otherwise, the lamp may break, causing injury.

Note

- Keep holding the camera arm and light stands until the folding process is complete.

Caution

Operate with care

- Do NOT apply excessive force to the camera arm and light stands. The unit may fall, causing injury.
- When operating (to raise or fold) the camera arm or light stands, be careful that your hands and clothing are not caught by moving sections. This may cause injury.
- Before use, confirm that the camera arm and camera head are locked in the shooting position. If not, the camera arm may fall down, causing injury.
- Do NOT lift the Imager by grasping the camera arm. Doing so may damage the Imager, and it could lead to personal injury if the Imager falls.

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Raising the Camera Head and Light Arms

Continued

4 Remove the cap from the camera.

To Fold the Camera Arm and Light Stands

Reverse the procedure of "Raising the camera arm and light stands". (☞ p.15)

1 Align the camera head with the camera arm.

2 Draw in the camera arm.

3 While holding the stopper pressed, raise the camera arm until it stands vertically.

Grip the camera arm when raising the camera head.

4 Fold the light stands.

Fold the light stands with the fluorescent lamps facing the document stage.
Fold the right stand first.
Then, fold the left stand.

5 While holding the stopper pressed, fold the camera arm until a clicking sound is heard.

Note

- **Keep holding the camera arm and light stands until the folding process is complete.**

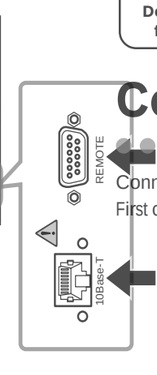
⚠ Caution

Operate with care

- **Do NOT apply excessive force to the camera arm and light stands. The unit may fall, causing injury.**
- **When operating (to raise or fold) the camera arm or light stands, be careful that your hands and clothing are not caught by moving sections. This may cause injury.**
- **Before use, confirm that the camera arm and camera head are locked in the shooting position. If not, the camera arm may fall down, causing injury.**
- **Do NOT lift the Imager by grasping the camera arm. Doing so may damage the Imager, and it could lead to personal injury if the Imager falls.**

Connecting a Projector and Monitor

Connecting a PC / Ethernet



Rear of this unit

Turn off the power.

When connecting to a network, first consult the administrator of the network.
Before connection, be sure to turn the power to this unit and the device to be connected off.
Depending on the device to be connected, use the RGB connector, S-video connector, or video connector.
Connection via the RGB connector provides detailed and colorful images by RGB output.

1 Turn off the power.

2 Connect the Ethernet cable (commercially available) to the Ethernet connector.

3 Connect the RS-232C cable (commercially available) to the RS-232C connector.

4 Connect the other end of the RS-232C cable to the RS-232C connector of the PC.

5 Connect the other end of the Ethernet cable to the Ethernet connector of the network.

(☞ p.32)

Connecting the Power Cord

Connect the power cable after all other connections are completed.
First connect the cable to the AC input connector of this unit, next connect the ground wire, then connect it to an AC outlet.

The shape of the cable may vary depending on the country of sale.

Power cable (supplied)

Connecting the Mouse

Connect the mouse with the arrow mark of the mouse cable facing upward.

Attaching the Fluorescent Lamps

Attach the supplied fluorescent lamps to the lamp holders on the light arms.
Check that the POWER switch is in the OFF position, and the power plug is disconnected from the AC outlet.

1 Insert the fluorescent lamp into the socket of the light stand.

2 While pressing the lamp towards the socket, fit it in the holder.

A clicking sound is heard.

If no clicking sound is heard,
press the lamp with your fingers.

When replacing the lamp, see "Replacing the fluorescent lamps". (☞ p.32)

Note

- **Be careful that the lamp will not be damaged by the holder.**
- **Make sure that the lamp is firmly secured in the socket and holder.**

⚠ Caution

Do NOT force

- **When handling a fluorescent lamp, avoid excessive force. Otherwise, the lamp may break, causing injury.**

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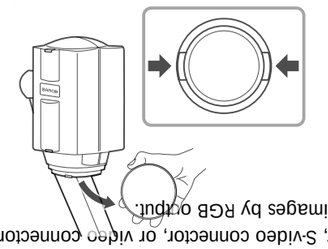
Raising the Camera Head and Light Arms

Continued

4 Remove the cap from the camera.



To Fold the Camera Arm and Light Stands

Reverse the procedure of "Raising the camera arm and light stands". (☞ p.15)

1 Align the camera head with the camera arm.

2 Draw in the camera arm.

3 While holding the stopper pressed, raise the camera arm until it stands vertically.

Grip the camera arm when raising the camera head.

4 Fold the light stands.

Fold the light stands with the fluorescent lamps facing the document stage.
Fold the right stand first.
Then, fold the left stand.

5 While holding the stopper pressed, fold the camera arm until a clicking sound is heard.

Note

- Keep holding the camera arm and light stands until the folding process is complete.

⚠ Caution

Operate with care

- Do NOT apply excessive force to the camera arm and light stands. The unit may fall, causing injury.
- When operating (to raise or fold) the camera arm or light stands, be careful that your hands and clothing are not caught by moving sections. This may cause injury.
- Before use, confirm that the camera arm and camera head are locked in the shooting position. If not, the camera arm may fall down, causing injury.
- Do NOT lift the Imager by grasping the camera arm. Doing so may damage the Imager, and it could lead to personal injury if the Imager falls.

Attaching the Fluorescent Lamps

Attach the supplied fluorescent lamps to the lamp holders on the light arms.
Check that the POWER switch is in the OFF position, and the power plug is disconnected from the AC outlet.

1 Insert the fluorescent lamp into the socket of the light stand.

2 While pressing the lamp towards the socket, fit it in the holder.

A clicking sound is heard.

Note

- Be careful that the lamp will not be damaged by the holder.
- Make sure that the lamp is firmly secured in the socket and holder.

⚠ Caution

Do NOT force

- When handling a fluorescent lamp, avoid excessive force. Otherwise, the lamp may break, causing injury.

Connecting the Power Cord

Connect the power cable after all other connections are completed.
First connect the cable to the AC input connector of this unit, next connect the ground wire, then connect it to an AC outlet.

Connecting the Mouse

Connect the mouse with the arrow mark of the mouse cable facing upward.

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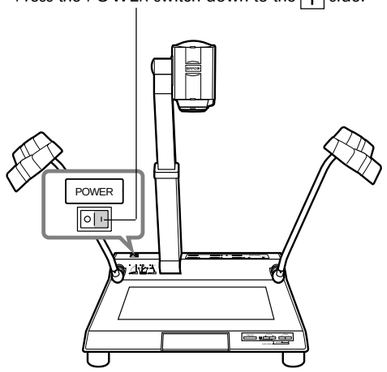
Shooting a Document

This unit accepts both opaque (to be shot with overhead lighting) and transparent materials (such as films, to be shot with base lighting).

1 Press the POWER switch to turn the power on.

The POWER indicator lights.

Press the POWER switch down to the | side.



Note

- **When turning the power off then on again, leave it off for at least 10 seconds before turning it back on.**

2 Turn on the connected equipment (monitor, etc.).

For details, refer to the operation manual for the connected equipment.

3 Perform the input selection on the connected equipment (monitor, etc.) so that the picture from this Imager is displayed.

For details, refer to the operation manual for the connected equipment.

4 Press the LIGHTS button.

Each time you press the button, the illumination changes as follows:

You can set the lights to turn on automatically when the power is turned on (after a warmup period of approx. 8 seconds). (☞ p.24)

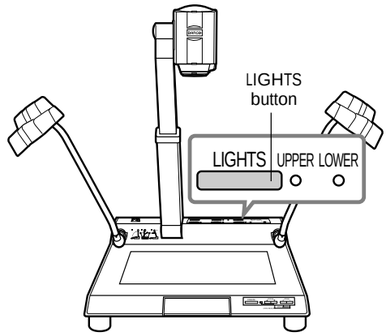
Overhead lighting on (the UPPER indicator lights.)

↓

Base lighting on (the LOWER indicator lights.)

↓

Both off, and so on.



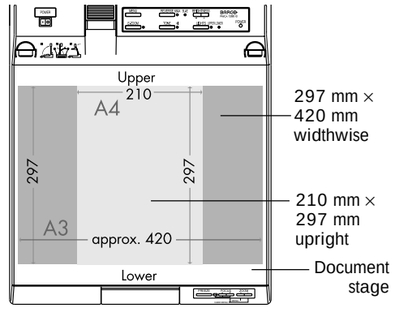
For opaque material
Use the overhead lighting.

For transparent material
Use the built-in light under the document stage.

1 Point

The same operation can be performed using the menu. (☞ p.24)

5 Place the material on the document stage.

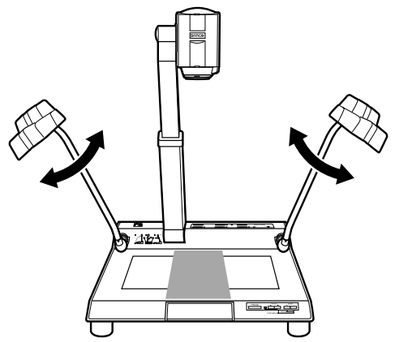


Note

- **The maximum size for opaque material is 297 mm in height and approx. 420 mm in width. Transparent material must fit within the area of the document stage.**

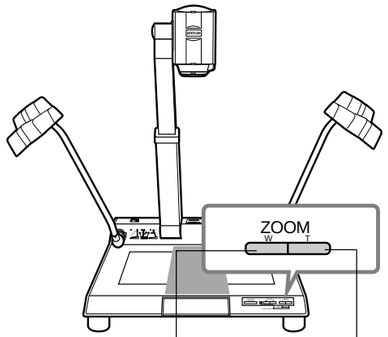
6 (Only when using an opaque document) Adjust the direction of the lighting.

Finely adjust it while observing the room lighting conditions so that the image will be clearly displayed.



7 Adjust the image size by pressing the ZOOM W or T button.

When you hold the ZOOM W or T button pressed, the image size changes continuously.



ZOOM W button
Press to widen the area to be captured.

ZOOM T button
Press to enlarge the image (max. 6 times).

Note

- **When you press the E-ZOOM button, the electronic zoom function is activated, and the E-ZOOM indicator lights. The image size becomes two or four times that adjusted with the ZOOM W/T buttons.**

Continue ▶▶▶▶▶

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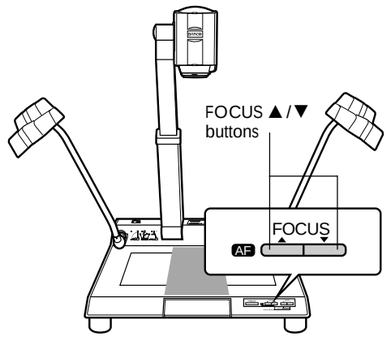
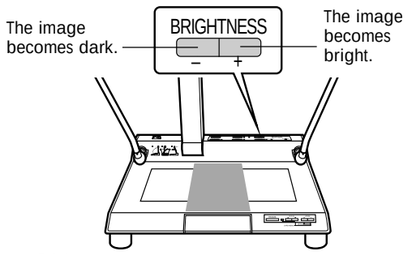
Shooting a Document Continued

8 Adjust the focus by pressing the FOCUS ▲ and ▼ buttons simultaneously.

The focus is adjusted automatically.
For fine adjustment, use either the FOCUS ▲ or ▼ button.
Each time you lightly tap the button, fine adjustment is performed. Repeat until correct focus is obtained.



9 Adjust the brightness by pressing the BRIGHTNESS + or – button.



Point

For a clear image

Press the TONE button. The contrast of the image is emphasized, making the image clear.

Point

To use the Pen function

You can draw lines on the screen using a mouse for smooth presentations. (☞ p.33)

⚠ Caution

Operate with care

- **The base of this unit may become hot during usage.**
- **Do NOT block the ventilation holes on the right side and bottom of the unit. The temperature inside the unit may become extraordinarily high, causing fire.**
- **Avoid any shock to the glass parts, such as the lens and fluorescent lamps, or the plastic parts of the document stage. The glass or plastic may be broken, causing injury.**

When changing the material (Freeze function)

Use the Freeze function to smoothly change the material. When the Freeze function is active, the image remains on the screen even if you remove the material from the document stage. While the Freeze function is active, the freeze mark ❚❚ is displayed at the upper left corner of the screen. The Freeze function is enabled only when a monitor or a projector is connected to the RGB connector. The Freeze function is invalid for the VIDEO and S-VIDEO outputs.

1 Press the FREEZE button.

Press the button before removing the material. The image will be frozen on the screen.

2 Change the material.

The original image stays on the screen.

3 Press the FREEZE button again.

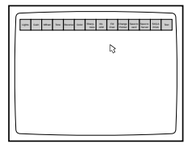
The Freeze function is deactivated, and the image of the new material appears on the screen.

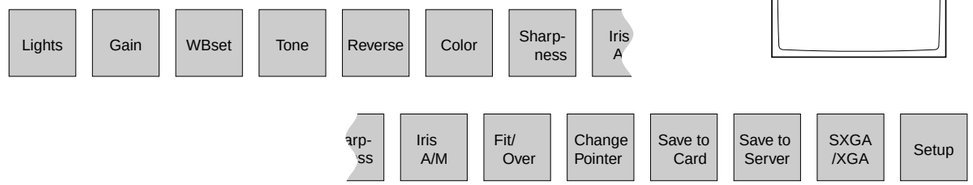
BARCO

Using Menus

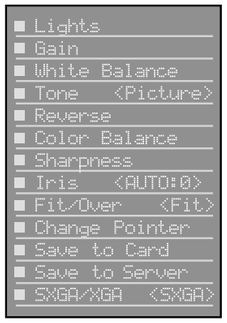
For efficient use of this unit, the following 14 menu icons are provided.

There are two methods for displaying and operating the menu icons; using the operation panel and using a mouse.
For details, see ☞ pp.22~23.





When displaying the menus on a submonitor:
The menu display on a submonitor connected to the VIDEO or S-VIDEO monitor is as follows:



The monitor for displaying the menus can be specified using the Setup menu. (☞ p.29)

Continue

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Using Menus Continued

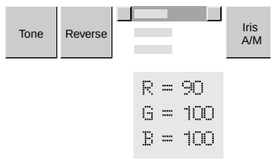
From the operation panel

1 Press the MENU button (or ZOOM W and T buttons simultaneously).
The menu icons are displayed.

2 Select the menu icon by pressing the ZOOM W or T button.
The status (settings of the menu items, etc.) of the selected menu is displayed beneath the icon.

3 Press the FREEZE button.
The selection is executed.
You can now change the setting values for the selected menu.

Example: When adjusting "COLOR"



1 Press the FOCUS ▲ or ▼ button to select the color to be adjusted.
Buttons appears at the left and right ends of the adjustment bar for the selected color.

2 Press the ZOOM W or T button to adjust the color.
The value set on the adjustment bar changes.

3 To adjust other colors, repeat step 1 and 2.

4 Press the FREEZE button to register your adjustment.

5 Press the FREEZE button.
The adjustment bar disappears.

For details, see "Items to be Adjusted Using Menus." (☞ pp.24~28)

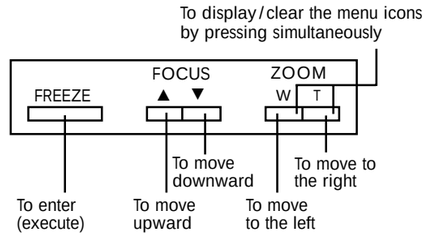
Note

- **While the menu icons are displayed, zooming operation using the ZOOM W/T buttons and focusing operation using the FOCUS ▲/▼ buttons are disabled.**

To clear the menu icons

Press the MENU button (or ZOOM W and T buttons simultaneously).
The menu icons disappear.

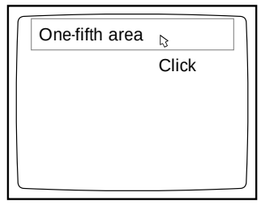
Functions of the buttons on the operation panel



When a mouse is connected, operations using the mouse are also possible.

Using the mouse

1 Move the pointer to the upper area (upper one-fifth of the screen) of the screen and click the right mouse button.

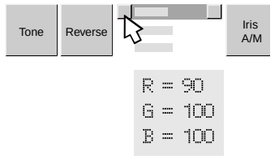


The menu icons are displayed.

2 Move the pointer and select the menu icon.
The status (settings of the menu items, etc.) of the selected menu is displayed beneath the icon.

3 Click the left mouse button (left-click).
You can now change setting values on the selected menu.

Example: When adjusting "COLOR"



1 Left-click the adjustment bar of the color to be adjusted.
Buttons appears at the left and right ends of the adjustment bar for the selected color.

2 Left-click the left or right button at the ends of the adjustment bar.
The value set on the adjustment bar changes.

3 To adjust other colors, repeat step 1 and 2.

4 Click the right mouse button to register your adjustment.

5 Move the pointer anywhere off the adjustment bar and click the left mouse button.
The adjustment bar disappears.

For details, see "Items to be Adjusted Using Menus." (☞ pp.24~28)

To clear the menu icons

Move the pointer anywhere other than on a menu icon and click the right mouse button.
The menu icons disappear.

Note

- **When you display the menu icons using the mouse, menu operations from the operation panel are disabled. Pressing a button on the operation panel activates the original function of the button, such as freeze, focus and zoom.**

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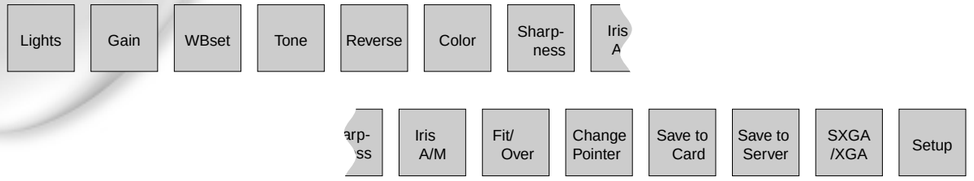
Items to be Adjusted Using Menus



■ Lights

To light the lamps and switch between overhead lighting and base lighting.

The LIGHTS button on the operation panel functions the same.

When you turn on the power next, the specified lighting will be turned on after approx. 8 seconds.

[UpperLight ON] → [BottomLight ON] → [All Light OFF]

UpperLight ON	Overhead lighting for opaque documents is turned on
BottomLight ON	Base lighting for transparent documents is turned on
All Light OFF	No lighting is turned on

Using the mouse

1 **Left-click the "Lights" menu icon.**
Each left click changes the setting as shown above.

2 **Click the right mouse button to register your adjustment.**

From the operation panel

1 **Press either the ZOOM W or T button.**
Each press of the ZOOM W or T button changes the setting as shown above.

2 **Press the FREEZE button to register your adjustment.**

■ Gain

To adjust the Gain (sensitivity).

You can adjust it in 33 steps in the range of "GAIN 20" to "GAIN 260."

Using the mouse

1 **Left-click the left or right button at the ends of the adjustment bar.**
The value set on the adjustment bar changes.

2 **Click the right mouse button to register your adjustment.**

3 **Move the pointer anywhere off the adjustment bar and click the left mouse button.**
The adjustment bar disappears.

From the operation panel

1 **Press either the ZOOM W or T button.**
The value set on the adjustment bar changes.

2 **Press the FREEZE button to register your adjustment.**

3 **Press the FREEZE button.**
The adjustment bar disappears.

■ WBset

To adjust the white balance.
As the ZOOM T button (for zooming) is to be used during this adjustment, use the mouse to perform the menu operations.
Before starting this adjustment, set to "Auto Exp. ON" using the Iris A/M menu, and set to IRIS = 0 by pressing the BRIGHTNESS +/– buttons. (☞ p.27)

1 **Place a white sheet on the document stage, and display it on the screen.**

2 **Hold the ZOOM T button pressed to enlarge the image to the maximum.**

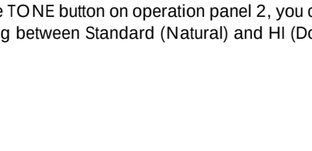
3 **Left-click "WBset."**
The white balance is adjusted.

4 **Click the right mouse button to resister your adjustment.**

When the white balance is adjusted, the "Gain" and "Color" settings return to the factory-set values.

■ Tone

To adjust the tone (gamma) setting.



Natural → Linear1 → Document → Linear2 → Picture

Natural	For ordinary documents
Linear1	To output an image as-is without compensation
Document	For documents with fine characters
Linear2	For glossy documents (the brightness will be decreased.)
Picture	For photos and color printed matters

Using the mouse

1 **Left-click the "Tone" menu icon.**
Each left click changes the setting as shown above.

2 **Click the right mouse button to register your adjustment.**

From the operation panel

1 **Press either the ZOOM W or T button.**
Each press of the ZOOM W or T button changes the setting as shown above.

2 **Press the FREEZE button to register your adjustment.**

Using the TONE button on operation panel 2, you can toggle the setting between Standard (Natural) and HI (Document).

Continue

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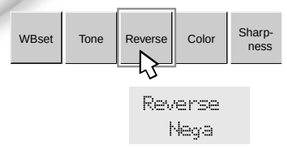
Items to be Adjusted Using Menus Continued

■ Reverse

To reverse the image.



Normal → Nega → BlueBack

Normal	For normal pictures
Nega	For black-and-white negative pictures
BlueBack	For blue background

Using the mouse

1 **Left-click the “Reverse” menu icon.**
Each left click changes the setting as shown above.

2 **Click the right mouse button to register your adjustment.**

From the operation panel

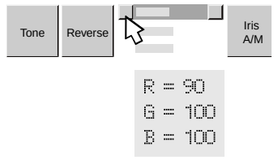
1 **Press either the ZOOM W or T button.**
Each press of the ZOOM W or T button changes the setting as shown above.

2 **Press the FREEZE button to register your adjustment.**

The same adjustment can be performed using the REVERSE button.

■ Color

To adjust the colors.
You can independently adjust R (red), G (green), and B (blue) in 21 steps each in the range of 50 to 150.



Using the mouse

1 **Left-click the adjustment bar of the color to be adjusted.**
Buttons appears at the left and right ends of the adjustment bar for the selected color.

2 **Left-click the left or right button at the ends of the adjustment bar.**
The value set on the adjustment bar changes.

3 **To adjust other colors, repeat step 1 and 2.**

4 **Click the right mouse button to register your adjustment.**

5 **Move the pointer anywhere off the adjustment bar and click the left mouse button.**
The adjustment bar disappears.

From the operation panel

1 **Press the FOCUS ▲ or ▼ button to select the color to be adjusted.**
Buttons appears at the left and right ends of the adjustment bar for the selected color.

2 **Press either the ZOOM W or T button to adjust the color.**
The value set on the adjustment bar changes.

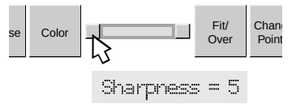
3 **To adjust other colors, repeat step 1 and 2.**

4 **Press the FREEZE button to register your adjustment.**

5 **Press the FREEZE button.**
The adjustment bar disappears.

■ Sharpness

To adjust the image contours, which can be adjusted in 6 steps.



Using the mouse

1 **Left-click the left or right button at the ends of the adjustment bar.**
The value set on the adjustment bar changes.

2 **Click the right mouse button to register your adjustment.**

3 **Move the pointer anywhere off the adjustment bar and click the left mouse button.**
The adjustment bar disappears.

From the operation panel

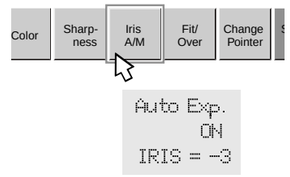
1 **Press either the ZOOM W or T button.**
The value set on the adjustment bar changes.

2 **Press the FREEZE button to register your adjustment.**

3 **Press the FREEZE button.**
The adjustment bar disappears.

■ Iris A/M

To alternately select automatic and manual iris adjustments.



Auto Exp. ON → Auto Exp. OFF

Auto Exp.ON	To activate the Auto Iris function
Auto Exp.OFF	To deactivate the Auto Iris function

Using the mouse

1 **Left-click the “Iris A/M” menu icon.**
Each left click changes the setting as shown above.

2 **Click the right mouse button to register your adjustment.**

From the operation panel

1 **Press either the ZOOM W or T button.**
Each press of the ZOOM W or T button changes the setting as shown above.

2 **Press the FREEZE button to register your adjustment.**
Normally select Auto. In Auto mode, adjustment in the range of ±3 steps can be performed. Should the reflection from an object disturb proper imaging with the Auto setting, select Manual and adjust with the BRIGHTNESS +/– buttons on the operation panel.
When you press the BRIGHTNESS + button, the lens aperture becomes wider for a brighter picture.
When you press the BRIGHTNESS – button, the lens aperture becomes narrower for a darker picture.

Continue

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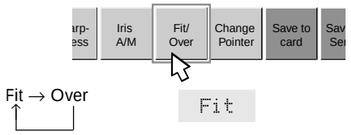
Items to be Adjusted Using Menus Continued

■ Fit/Over

To select the area to be displayed when displaying the image from an XGA file.

Select either Full Screen (1280 x 960 pixels) or Center (only 1024 x 768 pixels of the center area).

The Fit/Over function does not operate in SXGA mode.



Fit	To display the full screen
Over	To display the center area

Using the mouse

1 **Left-click the "Fit/Over" menu icon.**
Each left click changes the setting as shown above.

2 **Click the right mouse button to register your adjustment.**

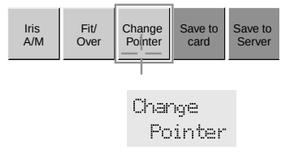
From the operation panel

1 **Press either the ZOOM W or T button.**
Each press of the ZOOM W or T button changes the setting as shown above.

2 **Press the FREEZE button to register your adjustment.**

■ Change Pointer

To change the form and color of the pointer.



Using the mouse

1 **Left-click the "Change Pointer" menu icon.**
Each left click changes the setting as shown above.

2 **Click the right mouse button to register your adjustment.**

From the operation panel

1 **Press either the ZOOM W or T button.**
Each press of the ZOOM W or T button changes the setting as shown above.

2 **Press the FREEZE button to register your adjustment.**

■ Save to Card

To save image data on a PC card.

Set "File Type" using "Timer ... Setting" of the Setup menu in advance. (☞ p.31)

Image files are stored under a directory named "CARDIBOX."

If the CARDIBOX directory does not exist on the PC card, it will automatically be created when you save an image file.

An image file is saved as "HITT0001.***".

Do not try to memorize an image to PC card during transferring an image by Network such as FTP and HTTP. When trying to memorize an image to PC card, disconnect the network or make sure that an image is not being transferred.

■ Save to Server

To save image data in an FTP server.

Set "File Type" using "Timer ... Setting" of the Setup menu in advance. (☞ p.31)

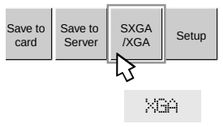
The setting for the FTP server connection using "NetWork Setting" of the Setup menu is also required. (☞ p.30)

For information on the FTP server, ask the administrator of your network.

An image file is saved as "HITP0001.***".

■ SXGA/XGA

To switch the output mode.



Using the mouse

1 **Left-click the "SXGA/XGA" menu icon.**
Each left click changes the setting as shown above.

2 **Click the right mouse button to register your adjustment.**

From the operation panel

1 **Press either the ZOOM W or T button.**
Each press of the ZOOM W or T button changes the setting as shown above.

2 **Press the FREEZE button to register your adjustment.**

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■ Setup

To set up startup status, networking, and other various items.

The Setup menu is displayed only on a monitor or projector connected to the RGB connector.

For the operating procedures, see "From the operation panel" (☞ p.22) and "Using the mouse" (☞ p.23).

Do not try to operate in the 'Setup' menu during transferring an image by Network such as FTP and HTTP. When trying to operate in the 'Setup' menu, disconnect the network or make sure that an image is not being transferred.

[Power ON Setting] ---------- Set the startup status.

TV out (NTSC, PAL, OFF)	To adjust the color format of video signals supplied from this Imager according to that of the connected monitor or projector. If you select "OFF," no video signal is supplied.
JPEG Quality	To set the picture quality when saving a JPEG image file. The value in parentheses indicates the approximate size of an image file after compression.
Menu (Main, Sub (TV))	When a submonitor for monitoring and operating at hand is connected in addition to the main monitor or projector, you can display the menus on the submonitor. Main: To display the menus on the monitor or projector connected via the RGB connector. The Setup menu is displayed. Sub (TV): To display the menus on the submonitor connected via the VIDEO or S-VIDEO connector. The Setup menu is not displayed. **To return to the "Main" setting** To return to the setting to display the menus on the monitor or projector connected via the RGB connector when the menus are displayed on a submonitor connected via the VIDEO or S-VIDEO connector, once turn off the power, then turn it on after 10 seconds or more. As the menus are displayed on the monitor or projector connected via the RGB connector upon first access of the menus, select "Main" from the Setup menu.

For other items, see pages 24 to 28.

The setting values for the picture being displayed on the right side of the Setup menu are displayed.

When the settings of the necessary items are completed, left-click SAVE .

Continue

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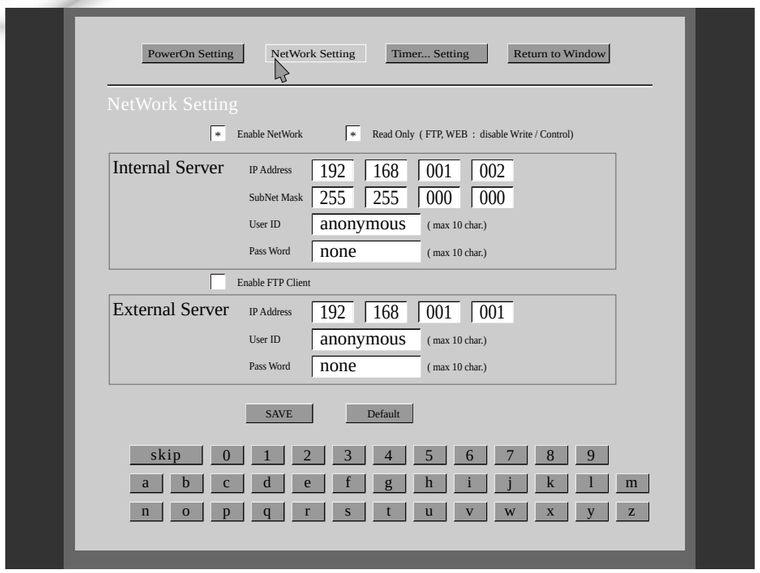
Items to be Adjusted Using Menus Continued

■ **Setup (Continued)** ----------

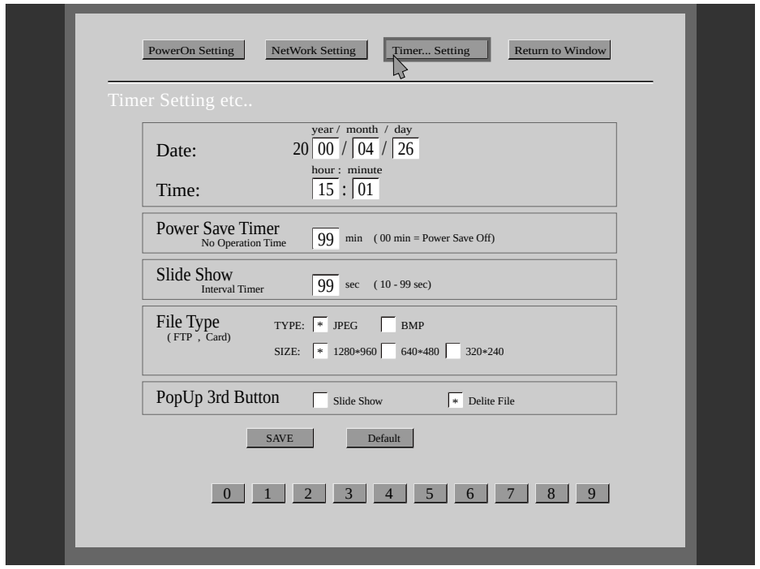
[NetWork Setting] ---------- Set the items relating to networking.


PowerOn Setting
NetWork Setting
Timer... Setting
Return to Window
NetWork Setting
Enable NetWork
Read Only (FTP, WEB : disable Write / Control)
Internal Server
IP Address 192 168 001 002
SubNet Mask 255 255 000 000
User ID anonymous (max 10 char.)
Pass Word none (max 10 char.)
Enable FTP Client
External Server
IP Address 192 168 001 001
User ID anonymous (max 10 char.)
Pass Word none (max 10 char.)
SAVE
Default
skip 0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m
n o p q r s t u v w x y z

Enable NetWork	To enable / disable the network function.
Read Only (FTP, WEB: disable Write / Control)	To inhibit / allow Web control and writing with FTP.
Internal Server	To set the IP addresses of FTP, HTTP and Telnet servers, subnet mask, user ID, and password. For the IP addresses, ask the administrator of your network. When you set "User ID" to other than "anonymous," identification is requested when connecting to the network. Log-on using the user ID and password specified here is enabled. (☞ p.32)
Enable FTP Client	To enable / disable the FTP client function. When the function is disabled, the menu buttons become inoperative, eliminating inadvertent activation.
External Server	To set an external FTP server. This setting is required when sending an image file to the FTP server. For instructions regarding the FTP server, ask the administrator of your network.

When you change the IP address, once turn the power off and then back on again.

[Timer... Setting] ---------- Set the time and date.


PowerOn Setting
NetWork Setting
Timer... Setting
Return to Window
Timer Setting etc..
Date: year / month / day 20 00 / 04 / 26
Time: hour : minute 15 : 01
Power Save Timer
No Operation Time 99 min (00 min = Power Save Off)
Slide Show
Interval Timer 99 sec (10 - 99 sec)
File Type
(FTP , Card)
TYPE: JPEG BMP
SIZE: 1280*960 640*480 320*240
PopUp 3rd Button
Slide Show
Delite File
SAVE
Default
0 1 2 3 4 5 6 7 8 9

Date:, Time:	To set the time and date.
Power Save Timer	To set the time (in minutes) from the last operation until the screen is darkened. When you select "00" min, the power save function does not operate. To recover the mode, press any button or move the mouse, when using web software, press Light ON / OFF or XGA / SXGA button.
Slide Show	To set the interval of image changes (in seconds) in a slide show. For information on slide shows, see "Items to be Operated Using the PC Card Menus". (☞ p.36) The interval may be prolonged over the specified time if processing of some image takes more time.
File Type	TYPE: To select the format (JPEG or BMP) when saving an image file on a PC card or in a server. SIZE: To select the file size (resolution) when saving an image file on a PC card or in a server.
PopUp 3rd Button	To set the function of the third button from the left of the PC Card menu. (☞ p.36) Slide Show: To use as the Slide Show button. Delete File: To use as the Delete File button.

When the settings of the necessary items are completed, left-click SAVE .

[Return to Window] ---------- To clear the menu and restore the normal display

Note

- **When the Imager will not be used for a prolonged period, the backup function for the built-in clock may deteriorate, and the clock may stop. After a long period of disuse, reset the clock. The backup function will be restored by applying the power.**

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Connecting to a Network

Make the following settings:

■HTTP (connect using a browser)

Install the Netscape Navigator ver.4.5 or Internet Explorer ver.5 or higher.
Set the IP address for the URL.
Example: http://192. 168. 1. 2.
When the unit is located inside a proxy, set the IP address (as shown above) for this unit without using the proxy.

■Connect using the FTP server (enter at the Windows DOS prompt.).

Example: FTP 192. 168. 1. 2.

■Connect using Telnet. (Enter at the Windows DOS prompt.)

For information of commands to control this unit with Telnet, consult your dealer.
Example: Telnet 192. 168. 1. 2.

When you set the IP address using the Network menu, once turn off the Imager and turn it on again.

Network application software

Accessible commands:

1. Single or Multiple Viewing Windows
Choice between two viewing configurations, one displaying a single captured image and the other displaying multiple images captured at different intervals.

2. Interval Timer
Allows programmable image capture between 2 seconds to 10 minutes.

3. Remote Monitoring and saving
Allows you to view the image captured over the LAN and save it to your PC or directly to the LAN in JPEG or BMP format.

4. Remote Control Settings
Similar settings to the control panels of the PreCa allows you to remotely control the settings and check status information over the LAN.

5. Location
Shows where the currently linked PreCa is located. Send location name to the PreCa by telnet commands as follow.
If the PRECA is in a meeting roomB of a company, send as
W_LCA␣COMPANY/ROOMB
The name is acceptable up to 32 letters. If no name is sent, there is a blank in location area.

Single window system

To download an image

Images can be downloaded via a network by any of the following three methods.

■ Saving in an FTP server

Prepare an FTP server. Use the Save to Server menu.
The time and date must be set in advance. (☞ p.31)

■ From an HTTP Web site

Data can be obtained by connecting to "http:// _____ _____ _____ _____" using a browser.

1) When the user ID is not "anonymous," specify the User ID and Password. (☞ p.30)
2) Click the button for downloading image files which is displayed in the upper portion of the screen when the network is connected.
   The Web camera display appears.
3) Click the download button in the lower portion of the screen.

■ Getting with an FTP command

You can obtain a file using FTP Get.

1) Issue the ls command.
   The RAMIBOX and CARDIBOX appear.
2) Execute cd RAMIBOX.
3) Issue the ls command again.
   Four files virtually appear.
   IMGMID.bmp
   IMGMID.jpg
   IMGFULL.bmp
   IMGFULL.jpg
   The time for these files is 0 hour 0 minute in this stage.
   The time of files that are actually obtained will be that when the GET command is issued.
4) Get the image.
   The image is downloaded when the Get command is issued.

Note

●**The web software's function may be limited in case of the combination of operating software and web browser.**

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Using a PC Card

- You can display images from files stored on a PC card, or shoot documents and store them on a PC card.
- Image files of JPEG or BMP (bitmap) format can be read with this unit.
- Set the compression rate to save a JPEG image file using "JPEG Quality" of the Power on Setting menu. You can select the file type and size for storage by using "File Type" of "Timer - Setting" in the Setup menu. (☞ p.31)
- You can exchange data with other equipment or PCs using PC cards.

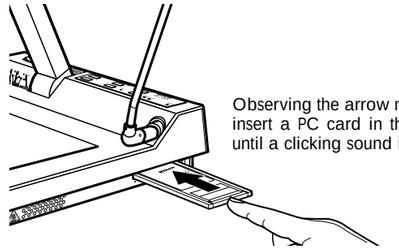
Notes on PC cards

- Use PC cards equivalent to PCMCIA ATA Type II flash cards.
- This unit does not have the function to format PC cards. Always use cards that have been formatted. If a PC card is to be formatted, use PC-DOS (VFAT12. 16).

Note

●**When using a compact flash card, do NOT touch the card while writing/reading image data files. Static electricity may disturb proper data writing/reading.**

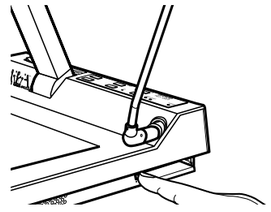
To insert a PC card



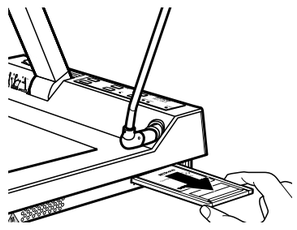
Observing the arrow mark on the card, insert a PC card in the PC CARD slot until a clicking sound is heard.

To eject the PC card

1 **Press the eject button until the card is released.**



2 **Remove the PC card.**



Note

●**Before using a PC card, read the instructions supplied with the card.**
●**When inserting a PC card, observe the direction or angle for the card. If the card is forcibly inserted in a wrong direction, the PC CARD slot or the card may be damaged.**
●**When inserting a PC card, turn on the power to the unit and check that the PC CARD indicator is dark.**
●**Be careful when ejecting the PC card, as it may have become hot during use.**
●**While the PC card is being accessed (the PC CARD indicator is lit in green), do NOT eject it, and do NOT turn off the power. This may cause a damage to the recorded data or the PC card.**

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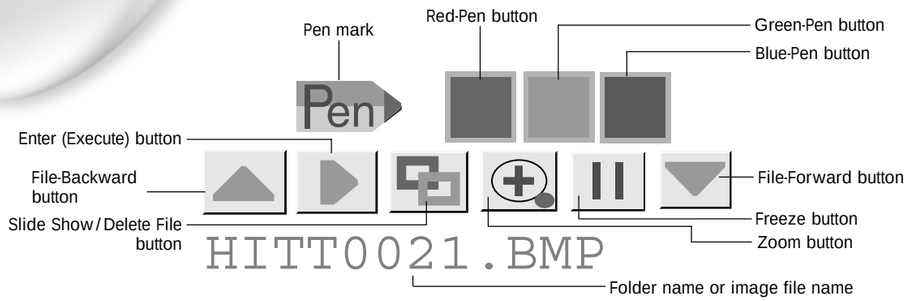
Using the PC Card Menu

The following PC Card menu is provided to operate PC cards and use the Pen functions.



The PC Card menu can be displayed and operated from the operation panel or using the mouse.

From the operation panel

1 Press the ZOOM T and FOCUS ▼ buttons simultaneously.

The PC Card menu is displayed in the lower-right portion of the screen.

2 Select the PC Card menu button using the ZOOM W/T button.

3 Press the FREEZE button.

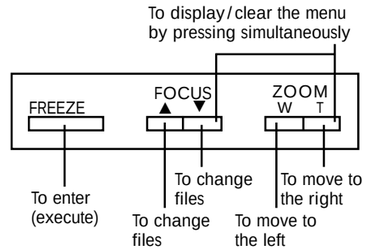
The selection of the PC Card menu button is executed.

■To clear the PC Card menu

Press the ZOOM T button and FOCUS ▼ button simultaneously.

The PC Card menu disappears.

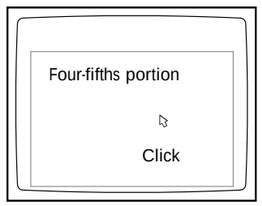
Functions of the buttons on the operation panel



When a mouse is connected, operations using the mouse are also possible.

Using the mouse

1 Move the pointer to the lower area (lower four-fifths of the screen) of the screen and click the right mouse button.



The PC Card menu is displayed in the lower-right portion of the screen.

2 Move the pointer to a PC Card menu button.

3 Click the left mouse button.

The selection of the PC Card menu button is executed.

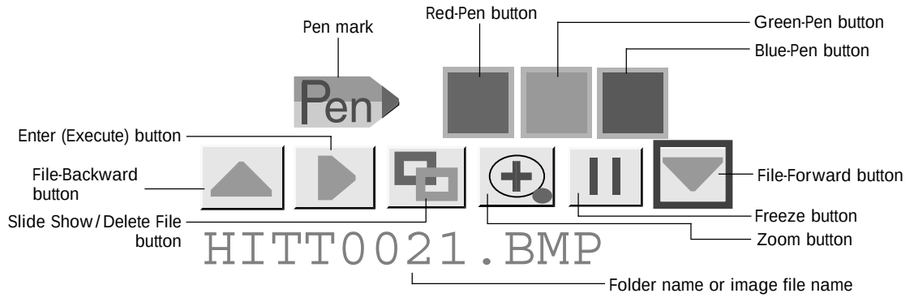
■To clear the PC Card menu

Move the pointer anywhere off the PC Card menu (lower four-fifths of the screen) of the screen and click the right mouse button.

The PC Card menu disappears.

Displaying an Image from a File on a PC Card

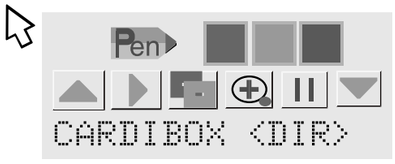
The image from a file stored on a PC card can be displayed using this Imager. The method using a mouse is discussed here.



1 Insert the PC card into the PC CARD slot. (☞ p.33)

2 Move the pointer to the area of lower four-fifths of the screen and click the right mouse button.

The PC Card menu is displayed in the lower-right portion of the screen.



3 Left-click the File-Forward button (▼) or the File-Backward button (▲) of the PC card menu to select the folder.

The folder name beneath the PC card menu changes.

Note

- **Files on a PC card are layered as follows:**
  - **CARDI BOX<DIR>**
    - **·· Return the upper directory**
    - **Filename HITT0001.JPG**
    - **Filename HITT0002.JPG**
    - **·**
    - **·**
    - **·**
  - **Another folder name<DIR>**

4 Left-click the Enter (Execute) button (►).

The list of image files in the selected folder is displayed.

5 Left-click the File-Forward button (▼) or the File-Backward button (▲) repeatedly until the desired filename appears.

6 Left-click the Enter (Execute) button (►).

The image from the selected file is displayed.

7 Display the image of the next file.

To display images in the sequence of files, left-click the Enter (Execute) button (►) of the PC Card menu.

To display the files in random sequence, repeat steps 5 and 6.

8 Finished.

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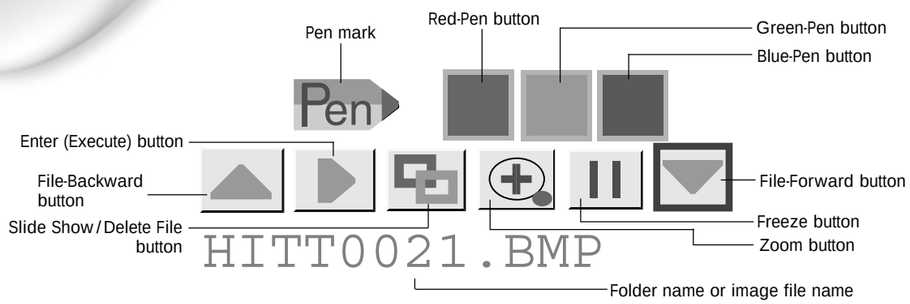
Items to be Operated on the PC Card Menu



■ Red-, Green-, Blue-Pen buttons ( ) ----------

You can draw lines or circles on the screen.

When you select the color (red, blue, or green) from the PC Card menu, the pointer changes to a pen tool.

By dragging the pen icon (moving it while holding the left mouse button pressed), you can draw a line on the screen as desired.

The lines drawn with the Pen function will disappear when the image of the next file is displayed. To deactivate the Pen function, left-click another button in the menu or click the right mouse button.

Note

- **The Pen function is enabled only for mouse operation.**
- **When you use the Pen function for an opaque or transparent document, the Freeze function is automatically activated. When the Freeze function is deactivated, the lines drawn with the Pen function disappear.**

■ Slide Show / Delete File button ----------

The button has two functions, which can be switched with the Setup menu. (☞ p.31)

Slide Show button ( )

To automatically display images of the files on a PC card in sequence. To stop the slide show, left-click another button of the PC Card menu.

The interval of images in a slide show can be set on the Setup menu. (☞ p.31)

Delete File button ( )

To delete an image file from a PC card.

1 **Left-click the Delete File button.**
The letters Y and N appear at the top or the PC Card menu.

2 **Left-click "Y."**
The file whose image is being displayed is deleted. Left-click "N" not to delete the file.

■ ZOOM button ( ) ----------

To enlarge the image from a PC card file on the screen.

Each left-click changes the size as follows:

When you move the pointer to an area outside the image while the electronic zoom is active, the screen automatically scrolls.

Actual size → 1.4 times→ 2 times → 2.8 times → 4 times

■ Freeze button ( ) ----------

To keep the current picture displayed on the screen while changing documents or switching images of PC card files. When you left-click the Freeze button again after changing documents or images, the new picture is displayed.

1Point

The Pen, Zoom, and Freeze buttons are valid not only for PC card file images but also for opaque and transparent documents.

1Point

The Slide Show, Delete File, Zoom and Freeze function can also be operated using the buttons on the operation panel. (☞ p.34)

1Point

Clicking the right mouse button cancels an active function.

When the PC card menu is displayed on a submonitor:

The PC card menu is displayed on a submonitor connected to the VIDEO or S-VIDEO connector as shown below:

To use the Pen function, display the PC card menu on a monitor or projector connected to the RGB connector. The monitor to display the PC card menu can be specified using the Setup menu. (☞ p.29)

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Cleaning the Main Unit

To remove dirt from the cabinet, lightly wipe the surface with a soft cloth.
For adhered dirt, wipe with a cloth soaked with neutral detergent diluted with water and wrung tight. Then wipe the surface with a dry cloth.

Replacing the Fluorescent Lamps

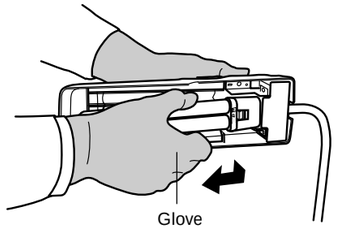
The fluorescent lamps used with this unit are commercially available. When a lamp has burned out, purchase one by specifying the type name (FPL13EX-N).

1 Turn the power off at the POWER switch, and disconnect the power plug from the AC outlet.

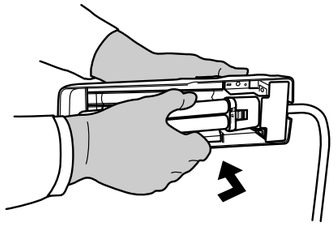
Soon after the lamp was lit, wait for 15 minutes or more for the lamp to cool down.

2 Rotate the lamp holder upwards, and remove the fluorescent lamp.

As the fluorescent lamp may be hot, we suggest wearing gloves.



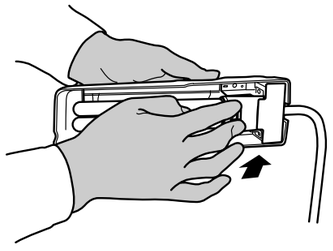
3 Insert the new fluorescent lamp into the socket.



4 While pressing the lamp towards the socket, fit it in the holder.

A clicking sound is heard.

If no clicking sound is heard,
press the holder with your fingers.



Note

- **Be careful that the lamp will not be damaged by the holder.**
- **Make sure that the lamp is firmly secured in the socket and holder.**

5 Replace the lamp on the other side in the same manner.

⚠ Caution

Caution for replacement

- **Before replacing a lamp, wait at least 15 minutes for it to sufficiently cool down to avoid burning your fingers.**
- **NEVER apply excessive force to a tube. It may break, causing injury.**

Do NOT replace it yourself

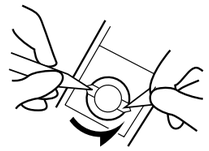
- **Replacement of the fluorescent lamp under the document stage must be referred to your dealer. Never attempt to replace it yourself.**

Cleaning the Mouse Ball

If dirt or foreign subject is stuck to the mouse ball, the ball may not roll smoothly, causing difficulty in moving the electronic pointer. In such a case, clean the ball as described below.

1 Unlock the frame at the bottom of the mouse and remove the ball.

Using a pointed tool, turn the two guide holes of the frame in the direction of the arrow (to the left) to release the lock.
Be careful not to drop the ball.

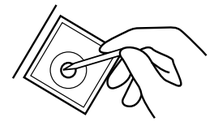


2 Wipe off the contamination from the ball's surface.

Wipe away stains with a clean dry cloth.
For stubborn stains, soak a soft cloth with a neutral detergent and thoroughly wipe the ball surface of the ball.

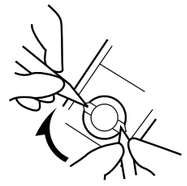
3 Clean the ball support and roller block.

Using a cotton swab, lightly wipe the block and while rotating the rollers.



4 Mount the ball and lock the frame.

Insert the ball into the mouse. Attach the frame and turn it to the right using a pointed tool to lock.



Others

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TROUBLESHOOTING

Symptoms	Measures
Power does not go on.	• Check that the power cable is not disconnected from the AC outlet or the AC power input receptacle of the unit. (☞ p.17)
No picture is obtained.	• Check that the cables are firmly connected. (☞ pp.13, 14) • Check that the cable is firmly connected to the appropriate receptacle of the equipment to be used in combination. (☞ pp.13, 14) • Check that the power switch is set to ON. (☞ p.18) • Check that the fluorescent lamps are lit. (☞ pp.18, 24) • Check that switching between the overhead and base lighting is correct. (☞ pp.18, 24) • Check that the document is not completely white or black. • When displaying the image of a PC card file, check that the file is not of a format that cannot be read by this unit. (☞ p.33) • Check that the lens cap is removed. (☞ p.16)
The picture is not clear.	• Check the focus. Press the FOCUS ▲ / ▼ buttons to obtain proper focus. (☞ p.20) • Check that the lens is placed correctly. (☞ p.15)
The picture is not fully displayed.	• Check that switching between SXGA and XGA is correct. (☞ p.29)
Pale or muddy colors.	• Adjust "Gain" and "Color" using the menu. (☞ pp.24, 26) • Try the TONE function by pressing the TONE button. (☞ p.6)

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SPECIFICATIONS

Input		
	Image pickup format	Direct pickup by a single-disc color CCD, input of 15 frames/second
	Maximum input size	U.S. letter size tall or 396 × 297 mm
	Objective lens	6-time electric moving zoom lens, Focal length=5.7 to 41.2 mm
		At W end F=3.4 to 16.2
		At T end F=4.1 to 19.3
	Reflected illumination	Two 13-watt fluorescent lamps (FPL13EX-N), excited at a high frequency Color temperature: 5000K
	Transmitted illumination	Cold cathode tube 3.1W × 2, color temperature 5000K
	Magnification power	Optical 6×, digital 2×, 4×
	Operability	On-screen menu selections by a mouse, equipped with an electronic pointer
	Pickup device	1/2.7-inch CCD, 1363 × 972 (1,300,000) pixels Effective pixels 1280 × 960
	Resolutions	SXGA: horizontal 800 TV lines, vertical 800 TV lines
		XGA: horizontal 640 TV lines, vertical 640 TV lines
		NTSC, PAL, S-video: horizontal 400 TV lines, vertical 370 TV lines
	Aspect ratio	4:3
	Exposure control	Automatic control by lens iris
	Exposure compensation	0.5- to 2-time compensation
	PC interface	10Base-T (RJ-45), PCMCIA Type II, RS-232C (D-sub 9-pin)
Output		
	Signal outputs	SXGA, XGA, NTSC, PAL, S-video
	Sync signal frequency	SXGA: H=63.981 kHz, V=60.020 Hz
		XGA: H=48.363 kHz, V=60.004 Hz
		NTSC: H=15.734 kHz, V=59.94 Hz
		PAL: H=15.625 kHz, V=50 Hz
PC card		
	Applicable cards	PCMCIA ATA Type II flash card
	Recording format	Conforms to JPEG, BMP
General		
	Dimensions	693 (w) × 510 (d) × 640 (h) mm (27 (w) × 20 (d) × 25 (h) inches) (in use)
		435 (w) × 510 (d) × 144 (h) mm (17 (w) × 20 (d) × 5.6 (h) inches) (in storage)
	Weight	Approx. 10.0 kg (22.05 lbs) (main unit)
	Power requirements	100-240 V AC, 50/60 Hz
	Power consumption	72 W

EC Declaration

EC DECLARATION OF CONFORMITY
The PreCa1280i is in conformity with the following directive and standards

Low Voltage Directive 73/23/EEC and 93/68/EEC
Safety standards: EN60950/1992 +A1+A2/1993 +A3/1995 +A4+A11/1997

EMC Directive 89/336/EEC
EMC standards: EN55022/1998Class B
EN55024/1998
EN61000-3-2/1995 +A1+A2/1998
EN61000-3-3/1995

Reference:

Low Voltage Directive:
TUV Rheinland Product Safety GmbH, Test Report No.E2061507E01

EMC Directive:
A-pex International Co. Ltd., Test Report No.19D0031-02-3

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